

## Chapter 4 Quiz Review

Lessons 4-1 through 4-3

### Congruency

1. Two triangles have the following pairs of congruent sides:  $\overline{BD} \cong \overline{FJ}$ ,  $\overline{DG} \cong \overline{JM}$ ,  
and  $\overline{GB} \cong \overline{MF}$ . Write the congruence statement for the two triangles.

$\overline{BD} \cong \overline{FJ}$   
1 2 3

$\overline{DG} \cong \overline{JM}$   
1 2 3

$\triangle QRS \cong \triangle TUV$ . Name the angle or side that corresponds to the given part.

$\overline{QR}$  1 2 3

2.  $\angle Q \cong \angle T$   
1 1

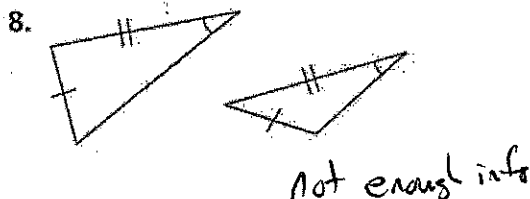
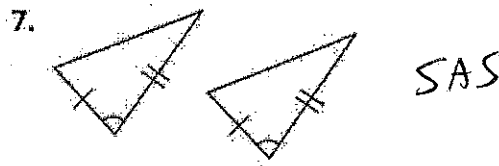
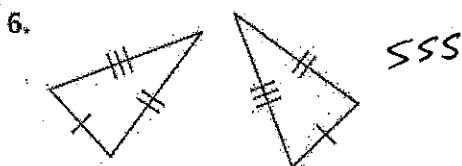
3.  $\overline{RS} \cong \overline{UV}$   
2 3 2 3

4.  $\angle S \cong \angle T$   
3 3

5.  $\overline{QS} \cong \overline{TV}$   
1 3 1 3

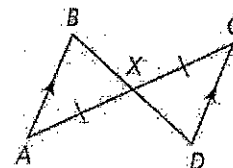
State the postulate or theorem that can be used to prove the triangles congruent. If you cannot prove the triangles congruent, write *not enough information*.

SSS  
SAS  
ASA  
AAS



Use the diagram at the right. Tell why each statement is true.

10.  $\angle A \cong \angle C$  alternate interior angles  
11.  $\angle AXB \cong \angle CXD$  vertical angles  
12.  $\triangle ABX \cong \triangle CDX$  ASA



Complete the following statements.

13. Given:  $\triangle FGH \cong \triangle WAX$

a.  $\overline{GH} \cong \overline{AX}$   
2 3 2 3

b.  $\angle W \cong \angle F$   
1 1

14. Given:  $\triangle BIKE \cong \triangle PATH$

a.  $\angle T \cong \angle K$   
3 3

b.  $\triangle HPA \cong \triangle KEB$   
3 4 1 2 3 1

Use the diagram at the right. Tell why each statement is true.

15.  $m\angle ADB = 90$

Given (from drawing)

16.  $\overline{BD} \cong \overline{BD}$

Reflexive

17.  $\triangle ADB \cong \triangle CDB$

AAS (angle, angle, side)

18. In  $\triangle ABC$ , which side is included between  $\angle B$  and  $\angle C$ ?

1 2 3

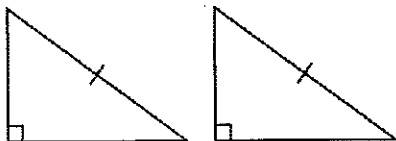
2

3

$\overline{BC}$   
2 3

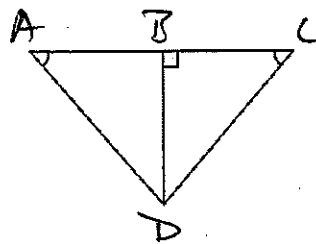
State the postulate or theorem you can use to prove each pair of triangles congruent. If the triangles cannot be proven congruent, write *not enough information*.

19.



Not enough info

20.



① add letters to help

②  $\angle A \cong \angle C$   
Given from drawing

③  $\angle ABD \cong \angle CBD$   
right angles are congruent

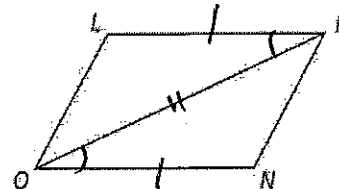
④  $\overline{BD} \cong \overline{BD}$   
Reflexive

⑤  $\triangle ABD \cong \triangle CBD$   
AAS

Proof:

21. Given:  $\overline{LM} \cong \overline{NO}$ ;  $\angle LMO \cong \angle NOM$

Prove:  $\triangle LMO \cong \triangle NOM$



| Statement                           | Reason    |
|-------------------------------------|-----------|
| $\overline{LM} \cong \overline{NO}$ | Given     |
| $\angle LMO \cong \angle NOM$       | Given     |
| $\overline{OM} \cong \overline{OM}$ | Reflexive |
| $\triangle LMO \cong \triangle NOM$ | SAS       |

Side  
angle